

Title (en)
AUTOMATIC RECOVERY CONTROL

Title (de)
STEUERUNG ZUR AUTOMATISCHEN WIEDERHERSTELLUNG

Title (fr)
COMMANDE DE RÉCUPÉRATION AUTOMATIQUE

Publication
EP 3206274 A1 20170816 (EN)

Application
EP 17155724 A 20170210

Priority
• US 201662293715 P 20160210
• US 201715426971 A 20170207

Abstract (en)
An automatic battery recovery system includes a power conversion system (PCS) coupled between an AC power line and a DC power bus. The PCS is configured to convert between DC power from a battery system and AC power from the AC power line. An automatic recovery control (ARC) circuit is coupled in parallel with the PCS between the AC power line and the DC power bus. The ARC circuit is configured to convert AC power from the AC power line into DC power for powering the PCS based on a state-of-charge (SOC) of the battery system. The PCS includes an inverter coupled between the AC power line and the battery system and a digital signal processor (DSP) configured to command the inverter to charge the battery system from the AC power line while the DSP is being powered through the ARC circuit.

IPC 8 full level
H02J 3/32 (2006.01); **H02J 7/00** (2006.01); **H02J 11/00** (2006.01)

CPC (source: EP US)
H01M 10/613 (2015.04 - US); **H01M 10/615** (2015.04 - US); **H01M 10/663** (2015.04 - US); **H01M 50/581** (2021.01 - US);
H02J 3/32 (2013.01 - EP US); **H02J 3/381** (2013.01 - EP US); **H02J 7/0048** (2020.01 - EP US); **H02J 7/04** (2013.01 - US);
H02J 9/062 (2013.01 - EP US); **H02J 11/00** (2013.01 - EP US); **H01M 2010/4271** (2013.01 - US); **H02J 7/0063** (2013.01 - EP US);
H02J 7/00714 (2020.01 - EP US); **H02J 7/007182** (2020.01 - EP US); **H02J 7/02** (2013.01 - EP US); **H02J 2207/10** (2020.01 - EP US);
H02J 2207/20 (2020.01 - EP US); **H02J 2300/24** (2020.01 - EP US); **Y02B 10/70** (2013.01 - US); **Y02E 10/56** (2013.01 - EP US);
Y02E 60/10 (2013.01 - EP); **Y02E 70/30** (2013.01 - US)

Citation (applicant)
• US 6608404 B2 20030819 - SCHIENBEIN LAWRENCE A [US], et al
• US 7808125 B1 20101005 - SACHDEVA RISHI [CA], et al
• US 6198178 B1 20010306 - SCHIENBEIN LAWRENCE A [US], et al
• US 8031495 B2 20111004 - SACHDEVA RISHI [CA], et al
• US 6628011 B2 20030930 - DROPPO GERALD W [US], et al
• US 6765315 B2 20040720 - HAMMERSTROM DONALD J [US], et al
• US 6738692 B2 20040518 - SCHIENBEIN LAWRENCE A [US], et al
• US 7087332 B2 20060808 - HARRIS BRENT EARLE [CA]

Citation (search report)
• [XY] WO 2014112925 A1 20140724 - POWER NORDIC AB E [SE]
• [Y] US 2005088868 A1 20050428 - RYAN MICHAEL J [US], et al
• [Y] US 2011304299 A1 20111215 - YANG JONGWOON [KR], et al
• [Y] US 5834132 A 19981110 - HASEGAWA OSAMU [JP], et al
• [Y] JP H05174964 A 19930713 - SHARP KK

Cited by
CN109995066A; CN107492910A; CN107359678A

Designated contracting state (EPC)
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BA ME

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